

IN THE SPECIFICATION:

The specification as amended below with replacement paragraphs shows added text with underlining and deleted text with ~~strikethrough~~.

Please REPLACE paragraph [0009], with the following paragraph:

In order to achieve the above-mentioned object, an optical spectrum analyzer according to the present invention comprises: a spectrograph, an acoustooptic device for diffracting an output light of the spectrograph, a photodevice array for detecting a wavelength of a diffraction light or a non-diffraction light from the acoustooptic device, and a control circuit for detecting a wavelength deviation, from an assigned wavelength, of a light detected by the photodevice array to control a diffraction angle of the acoustooptic device (~~claim 1~~).

Please REPLACE paragraph [0012], with the following paragraph:

The above-mentioned control circuit may be composed of a wavelength deviation detecting circuit for detecting wavelength deviations between wavelengths preliminarily assigned to photodevices composing the photodevice array and a wavelength of the light detected by the photodevice array, a beam diffraction angle calculator for calculating, from the wavelength deviation, a beam diffraction angle for providing incident light to the photodevice corresponding to the assigned wavelength, and an acoustic frequency calculating circuit for calculating an acoustic frequency from the beam diffraction angle to be provided to the acoustooptic device (~~claim 2~~).

Please REPLACE paragraph [0013], with the following paragraph:

Also, the above-mentioned wavelength deviation detecting circuit may be composed of a calculator for calculating a peak wavelength of the light detected by the photodevice array, and a detector for detecting a wavelength deviation between the peak wavelength and a closest wavelength among the photodevices in the photodevice array (~~claim 3~~).

Please REPLACE paragraph [0014], with the following paragraph:

Furthermore, the above-mentioned calculator may obtain an intensity of each photodevice to obtain a Gaussian distribution from the intensity, thereby calculating the peak

wavelength (~~claim 4~~).

While the above-mentioned optical spectrum analyzer adjusts the angle of the diffraction light at the acoustooptic device by using a feedback loop from the photodevice array to the acoustooptic device, an optical spectrum analyzer without using such a feedback loop can be achieved by the present invention.

Please REPLACE paragraph [0015], with the following paragraph:

Namely, if two photodevice arrays are provided for respectively receiving an exit light and a diffraction light from the acoustooptic device, and for mutually compensating gaps between photodevices, accurate wavelength detection can be performed by either of the photodevice arrays (~~claim 5~~).

It is noted that as the above-mentioned acoustooptic device, either a reflection-type or a transmission-type may be used (~~claims 6, 7~~), whereby the wavelength detection can be performed at the photodevice array by using the exit light and/or the diffraction light.

Please REPLACE paragraph [0016], with the following paragraph:

It is to be noted that the above-mentioned optical spectrum analyzer may further include a polarization compensating plate for separating a wavelength-multiplexed input signal into orthogonal components (~~claims 8, 9~~).

Furthermore, as the above-mentioned spectrograph, a diffraction grating may be used which spacially separates an output light of the polarization compensating plate into each wavelength component (~~claims 10, 11~~).

Please REPLACE paragraph [0017], with the following paragraph:

Also, in the present invention, for achieving the above-mentioned object, an optical spectrum detecting method is provided which detects, when an output light of a spectrograph is detected by a photodevice array through an acoustooptic device, a wavelength deviation, from an assigned wavelength, of a light detected by the photodevice array, and controls a diffraction angle of the acoustooptic device (~~claim 12~~).

Please REPLACE paragraph [0018], with the following paragraph:

The above-mentioned control of the diffraction angle may be performed by detecting wavelength deviations between wavelengths preliminarily assigned to photodevices composing the photodevice array and a wavelength of the light detected by the photodevice array, by calculating, from the wavelength deviation, a beam diffraction angle for providing incident light to the photodevice corresponding to the assigned wavelength, and by calculating an acoustic frequency from the beam diffraction angle to be provided to the acoustooptic device (~~claim 13~~).

Please REPLACE paragraph [0019], with the following paragraph:

The above-mentioned wavelength deviation may be detected by calculating a peak wavelength of the light detected by the photodevice array, and by detecting a wavelength deviation between the peak wavelength and a closest wavelength among the photodevices in the photodevice array (~~claim 14~~).

Also, the above-mentioned peak wavelength may be calculated by obtaining an intensity of each photodevice and by obtaining a Gaussian distribution from the intensity (~~claim 15~~).

IN THE CLAIMS:

Please AMEND the claims as indicated below:

1. (ORIGINAL) An optical spectrum analyzer comprising:
a spectrograph outputting light;
a device diffracting the light output from the spectrograph at an angle, the device being controllable to control the angle;
a photodevice array detecting the light from the device; and
a control circuit detecting a wavelength deviation in accordance with the light detected by the photodevice array and an assigned position of a wavelength of the diffracted light in the photodevice array, and controlling the device to control the angle in accordance with the detected wavelength deviation.

2. (ORIGINAL) An optical spectrum analyzer comprising:
a spectrograph outputting light;
an device changing an angle of the light output from the spectrograph;
a first photodevice array comprising photodevices with gaps between the photodevices; and
a second photodevice array comprising photodevices, the photodevices of the second photodevice array being arranged to compensate for the gaps between the photodevices of the first photodevice array, the first and second photodevice arrays together detecting the light output by the spectrograph and having an angle changed by the device.

3. (CANCELED)

4. (CANCELED)

5. (CURRENTLY AMENDED) An optical spectrum analyzer comprising:
an a-acoustooptic device changing an angle of a light, the acoustooptic device being controllable to control the angle; and
a photodevice array receiving the light having the changed angle, the acoustooptic device being controlled in accordance with a detected wavelength of the light as received by the photodevice array to control the angle.

6. (CURRENTLY AMENDED) An optical spectrum analyzer comprising:
an a-acoustooptic device changing an angle of light;
a photodevice array receiving the light having the changed angle; and
means for controlling the acoustooptic device to control the angle in accordance with a detected wavelength of the light as received by the photodevice array to thereby improve measurement accuracy of the optical spectrum analyzer.

7. (ORIGINAL) An optical spectrum analyzer comprising:
a spectrograph outputting light;
a device changing an angle of the light output from the spectrograph;
a photodevice array detecting light having an angle changed by the device; and
means for detecting a wavelength deviation in accordance with the light detected by the photodevice array and an assigned position of a wavelength of the light in the photodevice array, and for controlling the device to control the angle in accordance with the detected wavelength deviation.

8. (ORIGINAL) An optical spectrum analyzer comprising:
a device diffracting light;
a first photodevice array comprising photodevices with gaps between the photodevices; and
a second photodevice array comprising photodevices, the photodevices of the second photodevice array being arranged to compensate for the gaps between the photodevices of the first photodevice array, the first and second photodevice arrays together detecting the light diffracted by the device to thereby detect a spectrum by the optical spectrum analyzer.